The following claims are presented for examination:

**1.** (original) An article comprising;

a composite guiding region having at least three layers, wherein:

two of said three layers have stress of the same sign;

said two layers are separated by one or more interposed layers;

said one or more interposed layers have stress of opposite sign relative to said two layers; and

said interposed layers are suitable for guiding light based on the relative refractive indices of said interposed layers and said two layers.

**2.** (original) The article of claim 1, wherein at least one of said two layers comprises a first conformal layer.

**3.** (original) The article of claim 2, wherein said one or more interposed layers comprise a second conformal layer.

**4.** (original) The article of claim 1, wherein the magnitude of said stress of said two layers is substantially equal.

**5.** (original) The article of claim 1, wherein at least one of said two layers is stoichiometric silicon nitride.

**6.** (original) The article of claim 1, wherein at least one of said one or more interposed layers is chosen from the group consisting of silicon dioxide, silicon, polysilicon, phosphosilicate glass, borosilicate glass, and borophosphorous silicate glass.

**7.** (original) The article of claim 5, wherein one of said one or more interposed layers is silicon dioxide.

**8.** (original) The article of claim 1, further comprising a layer of electro-optically active material, wherein said electro-optically active material is disposed on at least one of said three layers.

**9.** (original) The article of claim 8, wherein said article is selected from the group consisting of a waveguide, an attenuator, a splitter, and an equalizer.

**10.** (original) A surface waveguide comprising;

a lower cladding layer comprising a lower cladding material; and

a core comprising an inner core and an outer core, wherein:

said inner core comprises one or more layers of inner core material;

said inner core material supports propagation of light;

said inner core material has a first stress;

said outer core surrounds said inner core; and

said outer core comprises an outer core material having a second stress of opposite sign relative to said first stress; and

an upper cladding comprising an upper cladding material, wherein said lower cladding material and said upper cladding material have indices of refraction lower than the index of refraction of said outer core material.

**11.** (original) The surface waveguide of claim 10, wherein one or more physical attributes of said inner core material and said outer core material, which physical attributes are selected from the group consisting of inner core layer thickness, outer core layer thickness, inner core stress level, outer core stress level, and type of material, are combined to provide a modal birefringence in said core of less than 0.0001.

**12.** (original) The surface waveguide of claim 10, wherein said lower cladding material and said upper cladding material are individually selected from the group consisting of silicon dioxide, silicon, polysilicon, phosphosilicate glass, borosilicate glass, and borophosphorous silicate glass.

**13.** (original) The surface waveguide of claim 10, wherein said inner core material and said outer core material are individually selected from the group consisting of silicon dioxide, silicon, silicon nitride, stoichiometric silicon nitride, silicon-rich silicon nitride, polysilicon, phosphosilicate glass, borosilicate glass, and borophosphorous silicate glass.

**14.** (original) The surface waveguide of claim 10, wherein said inner core material is silicon dioxide.

**15.** (original) The surface waveguide of claim 14, wherein said outer core material is stoichiometric silicon nitride.

**16.** (currently amended) A method of forming a surface waveguide comprising **forming a composite guiding region, wherein forming said composite guiding region comprises:**[[;]]

depositing on a surface of a substrate a first conformal layer comprising a first material having a first stress;

depositing on said first conformal layer a second conformal layer comprising a second material, wherein said second material has a second stress of opposite sign relative to said first stress;

depositing on said second conformal layer a third conformal layer of a third material, wherein said third material has a third stress of the same sign relative to said first stress.

**17.** (original) The method of claim 16, wherein said first material and said third material are the same material.

**18.** (original) The method of claim 16, wherein the magnitude of the stress of said first material and said third material is substantially equal.

**19.** (original) The method of claim 16, wherein said first material is stoichiometric silicon nitride and said second material is silicon dioxide and said third material is stoichiometric silicon nitride.

**20.** (original) The method of claim 16, wherein said first material is silicon dioxide and said second material is stoichiometric silicon nitride and said third material is silicon dioxide.

**21.** (original) The method of claim 16, further comprising depositing an electro-optically active material on a layer selected from said first conformal layer, said second conformal layer, and said third conformal layer.

**22.** (original) The method of claim 21, wherein said electro-optically active material is zinc-oxide.

**23.** (original) The method of claim 16, further comprising removing at least a portion of the thickness of said first material in at least one region.

**24.** (original) The method of claim 16, further comprising removing at least a portion of the thickness of said second material in at least one region.

**25.** (original) The method of claim 16, further comprising removing at least a portion of the thickness of said third material in at least one region.

**26.** (original) The method of claim 16, further comprising forming a topography on said surface prior to deposition of said first conformal layer of first material, said topography having a field region and at least one recessed feature.

**27.** (original) The method of claim 26, wherein at least one of said first conformal layer and said second conformal layer substantially fill said recessed feature.

**28.** (original) The method of claim 16, further comprising forming a topography on said surface prior to deposition of said first conformal layer of first material, said topography having a field region and at least one raised feature.

**29.** (original) A method of reducing modal birefringence in a surface waveguide comprising;

forming a composite guiding region comprising an inner core of a first material surrounded by an outer core of a second material wherein:

said inner core has a first stress; and

said first material supports propagation of light; and

said outer core has a second stress having opposite sign relative to said first stress; and

said second stress compensates said first stress such that the modal birefringence of said composite guiding region is less than 0.0001.

**30.** (original) The method of claim 29, wherein said first material is silicon dioxide and said second material is stoichiometric silicon nitride.

**31.** (original) The method of claim 29, wherein said first material is stoichiometric silicon nitride and said second material is silicon dioxide.

Claims **32-59:** (Canceled)